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EXAMINER

JORGENSEN, LELAND R

ART UNIT	PAPER NUMBER
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2675

DATE MAILED: 01/02/2003

4

Please find below and/or attached an Office communication concerning this application or proceeding.

84

**Office Action Summary**

Application No.

09/770,078

Applicant(s)

ASAI ET AL.

Examiner

Leland R. Jorgensen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 25 January 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1 - 44 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 - 44 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Claim Objections*

1. Claim 35 is objected to because of the following informalities: Line 7 says "said means for driving said display device." This should be "driver" to be consistent with line 3.

Appropriate correction is required.

### *Claim Rejections - 35 USC § 102*

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1 - 3, 9, 11, 13 - 15, 19, 24 – 27, and 29 - 34 are rejected under 35 U.S.C. 102(e) as being anticipated by Freeman et al., USPN 6,068,183 [hereafter Freeman I].

### **Claim 1**

Freeman I teaches an electronic apparatus [chip card 10]. The card comprises a rewritable display panel having memory capability [display elements 14a – 14c]. Freeman I, col. 3, lines 1 – 5; and figures 1A and 1C. A reception device [contacts 20 or communications path 23] receives display information. Freeman I, col. 2, lines 62 – 67; col. 4, lines 17 – 21; and figures 1A and 3. A controller [integrated circuit 16], responsive to the reception device, controls the display. Freeman I, col. 3, lines 32 – 38; and figure 1. The display shows first

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display information 32a and second display information 32b. Freeman I, col. 4, lines 6 - 16; and figure 2. The second display information may be shown with no power supplied to the display panel. Freeman I, col. 3, lines 1 - 4; and col. 6, lines 12 - 17.

### **Claim 2**

Freeman I teaches that the second display information is advertisement information 32. Freeman I, col. 1, lines 39 - 49; col. 3, lines 63 - 65; and figure 2.

### **Claim 3**

Freeman I teaches that the controller is configured to display the second display information at all times in at least an area of the display panel. Freeman, col. 3, lines 1 - 4; and col. 6, lines 12 - 17.

### **Claim 9**

Freeman I teaches an electronic apparatus [chip card 10]. A reception device [contacts 20 or communications path 23] receives display information. Freeman I, col. 2, lines 62 - 67; col. 4, lines 17 - 21; and figures 1A and 3. A first display portion [display element 14a] shows first display information associated with an operation of the apparatus. A second display portion [display element 14b] shows second display information. Freeman I, col. 3, lines 1 - 21; and figure 1A. The second display information may be shown with no power supplied to the display panel. Freeman I, col. 3, lines 1 - 4; col. 6, lines 12 - 17.

### **Claim 11**

Freeman I teaches a controller [integrated circuit 16], responsive to the reception device, controls the display. Freeman I, col. 3, lines 32 - 38; and figure 1. The display shows first display information 32a and second display information 32b. Freeman I, col. 4, lines 6 - 16;

and figure 2. The second display information may be shown with no power supplied to the display panel. Freeman I, col. 3, lines 1 – 4; col. 6, lines 12 – 17.

**Claim 13**

Freeman I teaches that the reception device is contacts to provide electrical connections. Freeman I, col. 2, lines 62 – 67; col. 4, lines 17 – 21; and figures 1A and 3.

**Claim 14**

Freeman I teaches that the chip cards offers wireless communication. Freeman I, col. 2, lines 62 – 67; col. 4, lines 17 – 21; and figures 1A and 3.

**Claim 15**

Freeman I teaches a control means for inhibiting simultaneous performing of communication via the reception circuit for radio communication and updating of at least one of the first display portion and the second display portion. Freeman I, col. 2, lines 62 – 67; col. 4, lines 17 – 21; and figures 1A and 3.

**Claim 19**

Freeman I teaches that the first display information is received from an external apparatus [chip card reader 34] through the reception device [communications path 23]. Freeman I, col. 4, lines 17 – 34; and figure 3.

**Claim 24**

Freeman I teaches an electronic apparatus [chip card 10]. The card comprises a display for displaying information having memory capability [display elements 14a – 14b]. Freeman I, col. 3, lines 1 – 5; and figure 1A. A controller [integrated circuit 16], responsive to the reception device, controls the display. Freeman I, col. 3, lines 32 – 38; and figure 1. The

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display shows first display information 32a and second display information 32b. Freeman I, col. 4, lines 6 - 16; and figure 2. The second display information may be shown with no power supplied to the display panel. Freeman I, col. 3, lines 1 - 4; col. 6, lines 12 - 17.

#### **Claim 25**

Freeman I teaches an electronic apparatus [chip card 10]. The card comprises a display for displaying information having memory capability [display elements 14a - 14b]. Freeman I, col. 3, lines 1 - 5; and figure 1A. A controller [integrated circuit 16], responsive to the reception device, controls the display. Freeman I, col. 3, lines 32 - 38; and figure 1. The display shows first display information 32a and second display information 32b. Freeman I, col. 4, lines 6 - 16; and figure 2. The second display information may be shown with no power supplied to the display panel. Freeman I, col. 3, lines 1 - 4; col. 6, lines 12 - 17.

#### **Claim 26**

Freeman I teaches that the controller is configured to display the second display information in at least a portion of the display panel when the apparatus is operated and when the apparatus is not operated. Freeman I, col. 3, lines 1 - 4; col. 6, lines 12 - 17.

#### **Claim 27**

Freeman I teaches a communication terminal [chip card 10] comprising a first display portion [display element 14a] and a second display portion [display element 14b]. The display portions have a memory capability. Freeman I, col. 3, lines 1 - 4; col. 6, lines 12 - 17. A controller [integrated circuit 16] selects either the first display portion or the second display portion as a display portion on which received image data is displayed. Freeman I, col. 3, lines 32 - 38; and figure 1. It is inherent to the device as described in Freeman I, col. 3, lines 14 - 21,

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the controller selects the display portion on which received image data is displayed based on an identifier attached to received communication data.

**Claim 29**

Freeman I teaches that the second display portion is liquid crystal display device that does not require a power source to display an image. Freeman I, col. 3, lines 2 – 5; col. 6, lines 11 – 16. It is inherent that such an LCD device must be reflective to reflect ambient light rather than draw on power for a back or edge light source. See Freeman I, Other Publications on Cover Sheet.

**Claim 30**

Freeman I teaches a receiver [contacts 20 or communications path 23] for receiving communication data. Freeman I, col. 2, lines 62 – 67; col. 4, lines 17 – 21; and figures 1A and 3.

**Claim 31**

Freeman I teaches a control means [software 64 or do not download information button 76] for inhibiting simultaneous performing of communication via the receiver and updating of at least one of the first display portion and the second display portion. Freeman I, col. 5, lines 36 – 52; and figures 6A, 6B, and 7.

**Claim 32**

Freeman I teaches that the first or second display information may be shown with no power supplied to the display panel. Freeman I, col. 3, lines 1 – 4; col. 6, lines 12 – 17.

**Claim 33**

Freeman I teaches a communication system. The system comprises a first communication terminal [chip card reader 34] including means for providing communication data [communication path 23] with an identifier related to a content of image data included in the communication data and a second communication terminal [chip card 10]. Freeman I, col. 4, lines 17 – 34; and figure 3. The chip card comprises communication means [contacts 20] for receiving communication data from the chip card reader. Freeman I, col. 2, lines 62 – 67; col. 4, lines 17 – 21; and figures 1A and 3. The chip card includes a first display means [display elements 14a – 14b] and a second display means having memory capability [display elements 14a – 14b]. Freeman I, col. 3, lines 1 – 5; and figure 1A. The chip card has control means [integrated circuit 16], responsive to the identifier attached to the received communication data, for selecting either the first display means or the second display means as a display on which received image data is displayed. Freeman I, col. 4, lines 6 - 16; and figure 2.

**Claim 34**

Freeman I teaches a method of communicating data comprising the steps of communicating data including image data to be displayed and communicating an identifier associated with the data to indicate that the image data is to be displayed on a display having a memory capability. Freeman I, col. 1, lines 40 – 49; and figures 4A – 4D, 5A and 5B.

4. Claim 40 is rejected under 35 U.S.C. 102(e) as being anticipated by Freeman et al., USPN 6,019,284 [hereafter Freeman II].



**Claim 40**

Freeman II teaches a portable communication terminal [chip card 10]. Freeman II, figure 1A. The chip card comprises a display device [display element 22] having memory capability. Freeman II, col. 4, lines 38 – 39, 53 – 58; and figure 1A. A driver [driver circuit 42] for driving the display device updates a display on at least a portion of the display device. Freeman II, col. 5, lines 34 – 45; and figure 6. A communication device [contacts 20] performs communication. Freeman II, col. 31 – 34; and figure 1A. A power source 38 supplies power to the communications device and the driver. Freeman II, col. 6, line 56 – col. 7, line 11; and figures 5A – 5C. A controller [integrated circuit 16 having a microprocessor] adjusts, based on a change in an input and output level of communication, timing of performing communication and timing of driving of the display device so as to limit a load on the power source. Freeman II, col. 5, lines 28 – 30; and col. 7, lines 12 – 35.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 4 - 6, 10, 12, 16, and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Freeman I.

#### **Claim 4**

Freeman I teaches that the controller is configured to display the display information at all times in at least an area of the display panel. Freeman I, col. 3, lines 1 – 4; and col. 6, lines 12 – 17. Claim 4 adds that the controller is configured to inhibit an operation by a user to turn off the display of the second display information.

Freeman I does not specifically teach that the controller is configured to inhibit an operation by a user to turn off the display of the second display information.

It would have been obvious to one of ordinary skill in the art at the time of the invention to configure the controller to inhibit an operation by a user to turn off the display of the second display information with the electronic apparatus as taught by Freeman I. Freeman I suggests such combination by teaching,

Such a configuration permits an orchestrated chip card 10 display where one display element 14a displays a stored value (e.g., a seat number), while the other 14b displays other graphic information (e.g., a theater seat map or directions to the theater).

Freeman I, col. 3, lines 8 – 12. Freeman I adds,

A variety of applications can make effective use of the above described techniques. For example, a stadium chip card system can quickly download electronic tickets for single or multiple events to a chip card along with seat and stadium location information. The ticket information can appear on the chip card display. This can occur at purchase time over a network, reducing box-office lines. Admission into the stadium by chip card would present an opportunity to download stadium specific information to each chip card such as the location of facilities or coupons for concession refreshments (e.g., cotton candy for a circus or hot-dogs for a ball game). Of course, the stadium could generate revenue by downloading an outside business' information for a fee.

Freedman I, col. 5, lines 53 – 65. Such application would require that the controller be configured to inhibit the user from turning off the display.

### **Claim 5**

Claim 5 adds that the controller is configured to update the second display information when power necessary for operating the apparatus can be supplied even if the second display information is up to date.

Freeman I does not specifically teach that the controller is configured to update the second display information when power necessary for operating the apparatus can be supplied even if the second display information is up to date.

It would have been obvious to one of ordinary skill in the art at the time of the invention to configure the controller to update the second display information when power necessary for operating the apparatus can be supplied even if the second display information is up to date so that the image could be refreshed whenever power is supplied. In the absence of such refreshing, the quality of the displayed image would deteriorate. Freeman I invites such configuration by teaching,

The microprocessor may control a driver circuit that develops the voltages appropriate to activate and deactivate the display element pixels. A power source on the card or an external power source (e.g., a card reader) can provide the power needed by the microprocessor and other stages. A polarity switch at the output of the driver circuit selects whether the row or column electrode is to receive the positive polarity. A row/column selector switch determines which specific row/column pair receives the voltages produced by the polarity switch and driver circuit. The microprocessor controls the driver circuit, polarity switch, and row/column selector switch.

Freeman I, col. 6, lines 47 – 58.

### **Claims 6 and 16**

Claims 6 and 16 each add memory for storing the second display information, the memory being detachable from the apparatus, and wherein the reception device receives the second display information from the memory.

Freeman I does not specifically teach a memory being detachable from the apparatus.

It would have been obvious to one of ordinary skill in the art at the time of the invention to add a memory being detachable from the apparatus to the apparatus as taught by Freeman I to reduce the memory and bulk of the card when the card is not engaged in the card reader.

Freeman I notes that the memory can be both in the card and the card reader. Freeman I thus invites such detachable memory by teaching, "Both a chip card with a display and a portable chip card reader can access and present the audiovisual information 32." Freeman I, col. 3, lines 61 – 63. Freeman I further adds,

The chip card reader 34 may be a stand-alone chip card reader, a computer peripheral, or a portable chip card reader. The chip card reader 34 may include software 38 and a database of audiovisual information 36. The chip card reader 34 not only sends information to the chip card 10, but may also store data describing the chip card transaction including which information the chip card reader 34 downloaded to the chip card 10.

Freeman I, col. 4, lines 22 – 29.

### **Claims 10 and 12**

Claim 10 each add that each of the first and second display portions is a part of a common display panel having memory capability. Freeman I teaches a first 14a and second 14b display portion. Freeman I, col. 3, lines 1 – 21; and figure 1.

Freeman I does not specifically teach that each of the first and second display portions is a part of a common display panel having memory capability.

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It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the first and second display portions as part of a common display panel to allow a single large display panel on the electronic apparatus. Freeman I invites such combination by teaching,

Display elements 14a-14b are provided on the top surface of the card. The display elements 14a-14b preferably include multi-color ferroelectric LCD displays that offer flexibility and do not require a power source to display an image. However, other cards may offer other types of display elements (e.g., suspended particle displays or field emission displays). The chip card 10 shown includes two display elements 14a-14b. Such a configuration permits an orchestrated chip card 10 display where one display element 14a displays a stored value (e.g., a seat number), while the other 14b displays other graphic information (e.g., a theater seat map or directions to the theater). A chip card 10 may instead offer a single display element (not shown) that nearly covers an entire side of the chip card 10.

Freeman I, col. 3, lines 1 – 14. See also Freeman I, col. 3, lines 39 – 44; and figure 1C.

### **Claim 28**

Claim 28 adds that the communication terminal further comprises a reception notification sound generator. Freeman I teaches a speaker 17. The speaker can both store and retrieve sound information from the chip card memory. Freeman I, col. 3, lines 26 – 31, 39 – 44; and figure 1C.

Freeman I does not specifically teaches that the controller is configured so that when the second display is selected as the display on which received image data is displayed, the controller displays the image data on the second display while inhibiting generation of a reception notification sound.

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It would have been obvious to one of ordinary skill in the art at the time of the invention to so configure the sound system so that sounds can be blocked when silence is desired.

Freeman I invites such combination by teaching,

Referring now to FIG. 6B, other points in the transmission path may block information transmission (76). For example, the host computer may recognize the card serial number as belonging to a card owner uninterested in receiving advertisements. Referring now to FIG. 7, the card owner may interact with a chip card reader that features a "do not download information" button 76 that prevents transmission of information from the chip card reader to the chip card. Again, many permutations of the above are possible.

Freeman I, col. 5, lines 44 – 52.

7. Claims 35 - 39 and 41 – 44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Freeman II.

### **Claim 35**

Freeman II teaches a portable communication terminal [chip card 10]. Freeman II, figure 1A. The chip card comprises a display device [display element 22] having memory capability. Freeman II, col. 4, lines 38 – 39, 53 – 58; and figure 1A. A driver [driver circuit 42] for driving the display device updates a display on at least a portion of the display device. Freeman II, col. 5, lines 34 – 45; and figure 6. A communication means [contacts 20] performs communication. Freeman II, col. 31 – 34; and figure 1A. A power source 38 supplies power to the communications means and the driver. Freeman II, col. 6, line 56 – col. 7, line 11; and figures 5A – 5C. A controller [integrated circuit 16 having a microprocessor] controls communication and the display device. Freeman II, col. 5, lines 28 – 30. The chip card controls the power source to conserve energy. Freeman II, col. 7, lines 12 – 35.

Freeman II does not specifically teach that the controller inhibits simultaneous performing of communication and updating of at least a portion of the display device so as to limit a load on the power source.

It would have been obvious to one of ordinary skill in the art at the time of the invention to provide that the controller inhibits simultaneous performing of communication and updating of at least a portion of the display device so as to limit a load on the power source. Freeman II invites such result by teaching,

The card may include a power source. The power source may be replaceable and/or rechargeable. The card may provide a mechanism to conserve power (e.g., a kickstart circuit). The power source may provide multi-media features. For example, the power source may drive a speaker, a microphone, or cause the display element to produce a series of images (e.g., a video clip) on the display element. The power supply may also power communication elements in a contactless card.

The invention has numerous advantages. It avoids the need for external readers by providing a practical built-in display of information stored on a card that can undergo flexing. This allows users of the cards to carry and handle the cards as they would conventional chip cards lacking a display. When applied to stored value cards, the invention permits the user of a card to conveniently determine the cash balance with as little as a quick glance at the face of the card, similar to coins or paper money which have their value printed on their face. The display element can provide a display of information without the use of batteries or any other power source, thus reducing the long term costs to both the chip card manufacturer and consumer. Introduction of a flexible power source, however, can enhance the features provided by the card (e.g., multi-media capabilities). The invention greatly enhances the convenience, efficiency, and practicality of chip cards for their uses.

Freeman II, col. 3, lines 14 – 40. Freeman II concludes,

A card can provide several methods of controlling output from a power source 38 to conserve card energy. Referring to FIG. 7, the card can incorporate a kickstart circuit 70 (e.g., a flip-flop 70 that controls power source 38) connected to a user controlled contact area 58. Pressing the contact area 58 causes the kickstart circuit 70 to initiate power output from the power source 38. The kickstart circuit can provide power for a pre-determined time period or until a

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subsequent pressing of the contact area 58 as shown. In another implementation, the contact area 58 could instead merely connect otherwise disconnected wires to draw power from the power source 38. As mentioned, however, in the preferred embodiment, the display element does not need power to display a static image when the power source does not deliver power. The contact area 58 can control other card functions, for example, clearing the display element.

Freeman II, col. 7, lines 12 – 26.

#### **Claims 36 - 39**

For the reasons stated in the rejection of claim 35 above, it would have been obvious to one of ordinary skill in the art at the time of the invention to provide the energy saving modifications described in claims 36 – 39 to the portable communication terminal as taught by Freeman II.

#### **Claim 41 - 44**

For the reasons stated in the rejection of claim 35 above, it would have been obvious to one of ordinary skill in the art at the time of the invention to provide the energy saving modifications described in claims 36 – 39 to the portable communication terminal as taught by Freeman II.

8. Claims 7, 8, 17, 18, and 20 - 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Freeman I in view of Valencia et al., USPN 5,380,991.

#### **Claims 7 and 17**

Claims 7 and 18 each add a detector for detecting information indicative of the presence or absence of reception of at least one of an electronic apparatus purchase price discount service and an electronic apparatus usage charge discount service.



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Freeman I does not specifically teach a detector for detecting information indicative of the presence or absence of reception of at least one of an electronic apparatus purchase price discount service and an electronic apparatus usage charge discount service.

Valencia teaches an electronic apparatus [smart card 2] that has a detector for detecting information indicative of the presence or absence of reception of at least one of an electronic apparatus purchase price discount service and an electronic apparatus usage charge discount service. Valencia, col. 3, lines 13 – 41; col. 4, lines 4 – 15, 37 – 51; col. 6, lines 40 – 44; col. 7, lines 13 – 17; col. 9, lines 30 – 53.

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine detection of the services as taught by Valencia with the electronic apparatus as taught by Freeman I. Valencia invites such combination by teaching,

Current food industry practice in the promotion of brand name products generally falls into two categories: new product introduction for creating a demand for a particular product; and existing product promotion for the purpose of retaining or expanding current market share of a particular product. The standard method of promotion used to effectuate these purposes is to provide coupon offerings as price discount inducements to initially try or repurchase a particular product. Currently, the results of these efforts are not cost-effective or easily managed.

Historically, a manufacturer or a retailer would produce a relatively large number of coupons, i.e. in the range of 20 to 50 million, and distribute these coupons to the public. Typically, these coupons would be printed in local or national publications, distributed to customers, mailed directly to potential customers or printed on the packaging of a product which is sold, all to induce the purchasing of this product by the consumer. Furthermore, once the coupon is redeemed by the customer at a retail center, such as a supermarket, the coupons are sent to a clearing house for redemption. If indeed 50 million coupons are printed, the approximate cost of producing and redeeming these coupons would be approximately \$250,000.

While many customers are inclined to utilize these coupons, due to the increasingly high costs of food and household items, the process of clipping and

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saving these coupons tends to be time-consuming and cumbersome. Furthermore, once these coupons are retained by the customer, the customer must remember to bring these coupons to the store for redemption. Often times, the customer will not bring his or her coupons when "running into the store" to make a quick purchase. Additionally, once the customer makes his or her purchases, the coupons associated with these purchases must be located among the coupons which the customer is not utilizing, the expiration dates of these coupons must be checked, and the coupons must then be given to the store clerk for scanning or otherwise entering the items into the store's computer. Once the store accumulates a number of coupons, they must then be sent to a redemption center, which in turn informs the various manufacturers of particular coupon usage.

It is not suggested that, due to the tedious nature of this process discount coupons be eliminated, particularly since, due to the high cost of various products, such as breakfast cereals, the manufacturers would expect that customers would utilize discount coupons to make these products more affordable. Rather, it is suggested that a different system should be developed in which discounts can be applied to various products in a more economical and efficacious process.

Valencia, col. 1, lines 11 – 63. Valencia teaches about its invention.

The present invention overcomes the deficiencies of the prior art by employing a paperless coupon redemption system, thereby avoiding the problems of the prior art in which paper coupons must be distributed by a manufacturer, retained by a customer, brought to a consumer outlet, organized at a checkout station, inspected to determine whether the coupons are expired and then redeemed at a central clearing house.

Valencia, col. 2, lines 51 – 58. Valencia invites one to consider different type of cards by adding,

Although FIGS. 1 and 2 describe the construction of a typical IC or smart card, it is noted that the particular construction of this card is unimportant to the teachings of the present invention. What is important is the utilization of a card having an erasable, programmable memory as well as data processing capabilities, so that the information provided in the memory of the card can be compared to information contained in a computer system (and also in every card terminal) for updating the information contained in the card.

Valencia, col. 4, lines 27 – 36. Valencia further states,

Since it is of paramount importance to determine whether a particular customer has previously purchased an item included in the progressive couponing

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technique, the customer's purchases must be tracked utilizing the smart card. Programmed into the erasable memory of the smart card would be a particular identification number associated with the customer, as well as an indication that a particular item subject to the progressive couponing system has been purchased. The smart card would then be updated by indicating an initial or subsequent purchase of an item subject to the progressive couponing system, as well as by deducting this discounted amount and any amounts discounted utilizing the "shop the dots" system from the customer's receipt total and the total amount presently listed in the card's memory.

Valencia, col. 6, lines 6 – 21. Valencia concludes with the desirability for the information to be tracked on each individual smart card.

It is important to note that, while it is possible that a customer would purchase and completely utilize the discounts available in a single trip to a retail establishment, the system and method according to the present invention contemplates that the customer would retain his or her smart card and utilize it during several trips to one or more retail establishments. Indeed, the fact that the information relating to this customer identification number, and the products previously purchased by the customer, is maintained in the memory of the smart card, allows the customer to employ the smart card at various establishments which are not even linked to one another by a national, or central computer system. The smart card can be recharged with values up to 10,000 times and at any participating store.

Valencia, col. 9, lines 15 – 29.

### **Claims 8 and 18**

For the reasons stated above in the discussion about claim 7 and 17, it would have been obvious to one of ordinary skill in the art at the time of the invention to configure the controller to select the display mode based on a result of detection by the detection means.

### **Claim 20**

Freeman I teaches a method of placing an advertisement on an electronic apparatus [chip card 10] having a display panel [display panel 14a - 14c] having memory capability and a controller [integrated circuit 16] for controlling the display panel. Freeman I, col. 3, lines 1 –5,

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32 - 28; and figure 1A and 1C. The method includes the steps of determining whether at least one predetermined service condition has been received. Based on a result of the determining step, if at least one predetermined service condition has been received, the controller activates a display on the display panel. Freeman I, col. 1, lines 50 - 64; col. 4, lines 7 - 10 and 60 - 65. The advertisement is displayed when the electronic apparatus is not operated and is maintained on the display with no power supplied thereto. Freeman I, col. 3, lines 1 - 4; and col. 6, lines 12 - 17.

Claim 20 adds that the predetermined service condition is selected from the group including an electronic apparatus purchase price discount service, an electronic apparatus usage charge discount service, a predetermined payment contract, and a predetermined discount in purchasing the electronic apparatus.

Freeman I does not specifically teach that the predetermined service condition is selected from the group including an electronic apparatus purchase price discount service, an electronic apparatus usage charge discount service, a predetermined payment contract, and a predetermined discount in purchasing the electronic apparatus.

Valencia teaches an electronic apparatus [smart card 2] that has a predetermined service condition is selected from the group including an electronic apparatus purchase price discount service, an electronic apparatus usage charge discount service, a predetermined payment contract, and a predetermined discount in purchasing the electronic apparatus. Valencia, col. 3, lines 13 - 41; col. 4, lines 4 - 15, 37 - 51; col. 6, lines 40 - 44; col. 7, lines 13 - 17; col. 9, lines 30 - 53.

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For the reasons stated above in the discussion about claims 7 and 17, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the predetermined services as taught by Valencia with the electronic apparatus as taught by Freeman

I.

*Further in new OL*  
*as applied to claims 7 & 17*  
Claims 21 - 23

Freeman I teaches a system and method of placing an advertisement on an electronic apparatus [chip card 10] having a display panel [display panel 14a - 14c]. Freeman I, col. 3, lines 1 - 5, 32 - 28; and figure 1A and 1C. The system includes setting means for setting the electronic apparatus so that predetermined information is displayed on the display panel if a predetermined service condition has been received. Freeman I, col. 1, lines 50 - 64; col. 4, lines 7 - 10 and 60 - 65. The display panel maintains the display with no power supplied. Freeman I, col. 3, lines 1 - 4; and col. 6, lines 12 - 17.

Valencia teaches an electronic apparatus [smart card 2] and method that maintains an identification number of the electronic apparatus and information on the presence or absence of a discount service. It is inherent that such material would be organized into a table. Valencia also teaches a counter for counting a usage charge based on a use condition of the electronic apparatus, and subtraction means for reducing the usage charge based on the registered information. Valencia, col. 3, lines 13 - 41; col. 4, lines 4 - 15, 37 - 51; col. 6, lines 40 - 44; col. 7, lines 13 - 17; col. 9, lines 30 - 53. Valencia also teaches a means for charging a user based on the reduced usage charge. Valencia, col. 3, lines 13 - 41; col. 4, lines 4 - 15, 37 - 51; col. 6, lines 40 - 44; col. 7, lines 13 - 17; col. 9, lines 30 - 53.

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For the reasons stated above in the discussion about claims 7 and 17, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the discount services as taught by Valencia with the electronic apparatus as taught by Freeman I.

***Conclusion***

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Suto et al., USPN 4,746,787, teaches a smart card with LCD display.

Yamazaki, USPN 4,954,985, teaches a ferroelectric LCD display data storage card.

Nemirofsky, USPN 5,953,047, teaches a television signal activated smart card that includes a discount service.

Powell, USPN 6,339,762 B1, teaches a discount service and system using a smart card.

Reinhardt, USPN 5,598,565, teaches methods for screen power saving.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leland Jorgensen whose telephone number is 703-305-2650. The examiner can normally be reached on Monday through Friday, 7:00 a.m. through 3:30 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven J. Saras can be reached on 703-305-9720.

**Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks  
Washington, D.C. 20231

**or faxed to:**


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**(703) 872-9314 (for Technology Center 2600 only)**

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office, telephone number (703) 306-0377.

lrj



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